

# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL SEARCHING AUTHORITY

To:

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GPO Box 4164  
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## PCT

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) **07 MAY 2004**

**FOR FURTHER ACTION**  
See paragraph 2 below

Applicant's or agent's file reference  
**FP19545**

International application No.  
**PCT/AU2004/000461**

International filing date (day/month/year)  
**8 April 2004**

Priority date (day/month/year)  
**11 April 2003**

International Patent Classification (IPC) or both national classification and IPC  
**. Cl. 7 C09K 3/18, C09D 5/02, 5/00**

Applicant  
**UNISEARCH LIMITED et al.**

**1. This opinion contains indications relating to the following items:**

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application  |

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the IPEA/AU  
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International Application No.  
**10/552533**  
PCT/AU2004/000461

**Box No. I**      **Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/AU2004/000461**

**Box No. V      Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 1-25,27-35	YES
	Claims 26	NO
Inventive step (IS)	Claims	YES
	Claims 1-35	NO
Industrial applicability (IA)	Claims 1-35	YES
	Claims	NO

**2. Citations and explanations:**

**CITATIONS**

D1. WO 2001/014497

D2. WO 1999/057185

D3. WO 1998/042452

D4. EP 1215252

D5. JP 2002114941

D6. JP 02208382

**NOVELTY**

Claim 26: This claim is directed to a transparent hydrophobic coating on which water has a contact angle of at least 130°.

D1 discloses a modified gel which is capable of forming a hydrophobic surface on which water has a contact angle of at least 150°. D3 discloses a coated surface having a contact angle >150° and D6 discloses a contact angle of 138°. Hence, the claim is not novel in the light of these citations.

**INVENTIVE STEP**

Claim 26: This claim lacks an inventive step for reasons given above.

Claims 1-25, 27-35: The claimed invention relates to a method of forming a hydrophobic coating on the surface of a substrate, the method comprising the steps of forming an emulsion of particulate material, a surfactant, water and an organic solvent, applying the emulsion to the surface, removing the water and solvent and decomposing the surfactant. Although citations D1 to D6 do not disclose the use of a surfactant, it should be noted that it is common knowledge to a person skilled in the art to use an emulsifier or surfactant to obtain an emulsion from a immiscible mixture of water and organic matter. Hence, the claims are not inventive in the light of the citations.

**WRITTEN OPINION OF THE  
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International application No.

**PCT/AU2004/000461**

**Box No. VI      Certain documents cited**

**1. Certain published documents (Rules 43bis.1 and 70.10)**

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
US 6657001	2 December 2003	31 July 2000	23 December 1999
US 6599633	29 July 2003	4 April 2000	10 April 1999
JP 2003128991	8 May 2003	26 October 2001	26 October 2001

These citations disclose coating compositions for rendering the surface of a substrate hydrophobic. In particular, US 6657001 discloses a composition comprising silica particles, polysiloxane, curing agent and a surfactant.

**2. Non-written disclosures (Rules 43bis.1 and 70.9)**

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/AU2004/000461**

**Box No. VIII    Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 26 is not fully supported by the description. In particular, the hydrophobic coating claimed is not limited to ones prepared according to the present invention.